Digital Information (Part 2)
Work Sheet: 04-PS-15-WS

Introduction:

Questions: (* questions can be used for evaluation)

1. Information can be digital or non-digital. Which of the following is digital information?
    a. Sound of Waterfall on the Western Ghats during Monsoons
    b. Sound of Waterfall played on TV / Cell-phone
    c. Your mother's voice asking you to come to kitchen and have your meal.
    d. Your mother's voice on the phone - "Hello, where are you? Come back home straight after your tuition classes, don't start playing in the playground."
    e. Video game on your playstation / cell phone

2. Give 2 examples of digital sounds in your classroom and 2 examples of real life sounds that you can hear in your classroom.

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3. Arrange the following information types in the increasing order of number of 0s and 1s required to convert the information into digital representation, from lowest to highest:
    - SMS
    - A video clip of 1 minute showing you winning a school prize in sports activity
    - A picture of your pet taken with a professional high definition digital camera
    - 3D Animation movie (30 minutes)
    - A text message from your father
    - 5 pictures taken using a cell-phone camera

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Name: **Class:** **Div:** **Roll. No:**

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4. Which of the following statements are true? If it is false, correct the statement and rewrite it.

- Encoding refers to the process of applying rules to a set of 0s and 1s to convert it back into human readable information.
- Encoding is the reverse process of decoding.
- We need to use same rule to encode any information whether it is text or image or sound.
- We need to use the same rule to encode and to decode a piece of information.
- RGB is used to encode textual information.
- Video can be encoded using any of these rules - VHS, JPEG,DVD, HD, MPEG,GIF

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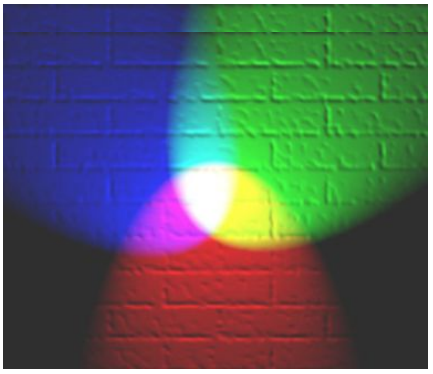
5. Refer to the picture below - it shows three color lights (Red, Green and Blue) thrown on a white wall. Can you identify when different color lights are mixed? Tick the correct statements and cross the incorrect ones below:

- Red + Green = White
- Red + Blue = Magenta
- Blue + Green = Cyan
- Red+ Blue+ Green = White
- Red + Blue + Green = Black



6. Homework question: Find out how many pixels are there on your home TV and or computer and or cell phone screen. Observe the picture quality carefully. When you visit your friends place next, check out their TV / computer / cell phone picture quality. Notice if there is any difference in picture quality. If there is, find out how many pixel the device has - does it have less pixels or more than your home TV?

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